NOAA Climate and Societal Interactions (CSI) Program –
CSI – Regions
FY 2011 Information Sheet

The NOAA Climate and Societal Interactions program (CSI), formerly the Climate Assessment and Services Division of CPO, provides national leadership in developing interdisciplinary science and services, including assessments, for application in climate-sensitive sectors and regions. NOAA CSI is designed to support and advance the evolving NOAA Climate Service effort (http://www.noaa.gov/climate.html). The goals of the CSI program are: 1) identification and articulation of user-community requirements in multiple sectors, initially with regard to water resources and the coastal zone then branching to related sectors; 2) research and development of innovative and broadly applicable approaches to support decision-making, especially for risk characterization, both through a broad network of regionally scoped, long-term efforts and stakeholder-specific efforts; and 3) promotion of the transfer of knowledge, tools, and products across climate service development efforts (within NOAA, across the federal government, nationally, and internationally).

CSI-Regions supports broad decision-making and stakeholder networks, within fairly large regions of the United States, to provide ongoing adaptation support. CSI-Regions supports emerging regional efforts to support climate services including, primarily, the Regional Integrated Sciences and Assessments (RISA) teams. RISA teams perform natural and physical science, across a number of sectors, and draw on social science to continually develop and evaluate innovative outreach activities for communicating that science to decision makers. In addition, the RISA teams work collaboratively with CSI-Water and CSI-Coasts (described below) to draw upon climate research performed in those communities and provide adaptation support to water and coastal resource managers. Finally, through the Coping with Drought initiative, CSI-Regions strengthens the National Integrated Drought Information System (NIDIS) by supporting specific research activities in regions threatened by drought including cross-RISA collaboration.

Regionally Integrated Sciences and Assessments (RISA)

The Regional Integrated Sciences and Assessments initiative (RISA) supports an ongoing stakeholder network to strengthen scientific research that addresses complex climate sensitive issues of concern. RISA teams work directly with people who are involved with activities, resources, or property that may be vulnerable to climate variability and change, and they span the social, natural, and physical science disciplines. RISA teams expand or enhance the adaptive capacity of decision makers by creating and evaluating science-based, decision support tools. The objectives of RISA are to:

- Maintain and strengthen an ongoing stakeholder network including communities, resource managers, planners, and end-users such as local, state, and federal agencies, agricultural extension specialists, Native American communities and public utility companies.

- Utilize the stakeholder network to collaboratively and continually identify climate-sensitive resources and socio-economic needs in the region.
- Coordinate and conduct integrated natural and social science and assessment relevant to the needs of the stakeholder network.
- Expand or enhance the capacity of decision makers to adapt to climate variability and change by creating and evaluating science-based, decision support tools
- Work with operational or quasi-operational entities (e.g., government agencies, extension networks, and the private sector) to transition RISA models and tools to those entities for long-term sustainability.

In FY2010, we intend to fund RISA teams in the following regions:

- Pacific Islands region, Melissa Finucane (East-West Center in Hawaii)
- Washington, Oregon and Idaho, Phil Mote (Oregon State University)
- Colorado, Wyoming and Utah, Brad Udall (University of Colorado)
- Michigan, Ohio and parts of Ontario (Watersheds of Lakes Huron and Erie), Don Scavia (University of Michigan)
- Alabama, Florida and Georgia, Jim Jones (University of Florida)
- Urban Northeast (Boston-NY-Philadelphia corridor), Cynthia Rosenzweig (Columbia University)
- Alaska/Arctic, Dan White (University of Alaska)**
- California/Nevada, Dan Cayan (Scripps Institution of Oceanography)**
- Arizona and New Mexico, Jonathan Overpeck (University of Arizona)
- Oklahoma, Texas, Louisiana, Mississippi, Arkansas, and Tennessee, Mark Shafer (University of Oklahoma) and Barry Keim (Louisiana State University)
- North and South Carolina, Greg Carbone (University of South Carolina)**

** - Scheduled to be competed in 2011 for an additional 5-years (see below for additional details).

The following sections describe RISA in greater detail. For those familiar with RISA, the FY11 funding priorities are described in the last section.

Target Audience

RISA teams develop science, assessments, and decision support tools for decision makers in resource management and public policy. RISA teams investigate climate sensitive issues associated with natural and built environments.

Sectors/Issues

RISA teams address pressing climate-sensitive issues identified by stakeholder networks. Interaction with a stakeholder network allows RISA scientists to continually prioritize climate issues worthy of research and decision support. RISA teams currently investigate climate impacts on the following sectors: fisheries, water, wildfire, agriculture, public health, transportation and coastal zones. Because climate variability cuts across sectors,

RISA teams are expected to analyze interconnections between sectors and provide assessments of these interrelationships to create and enhance adaptation support tools.

The end-to-end nature of the dialogue between the climate scientists and the stakeholder network provides the perfect setting for social scientists and outreach experts to evaluate the overarching issue of the role of science in supporting policy and decision making. Through regional stakeholder networks and the evaluation of stakeholder interactions, RISA teams can strengthen NOAA climate services by capitalizing on successful decision support from one team (and region) to another.

RISA teams

RISA teams are comprised of physical, natural, and social scientists and engineers with previous experience interacting with stakeholders in their region. They also often include program managers, outreach specialists, and other staff who work on team integration and management, connecting stakeholder needs with the direction of the research agendas and outcomes.

Partners

A successful RISA requires innovative and embedded long-term partnerships across a spectrum of interested parties including Federal, State, Native, regional, local and private entities. The stakeholder interactions happen on an ongoing basis and should be used to inform the evolution of RISA research, tool development/enhancement and further work with resource managers and planners.

RISA teams benefit from collaboration with researchers from CSI-Water, CSI-Coasts, and CSI-International, as well as other RISA teams. Researchers from CSI-Water and CSI-Coasts can delve into sector-specific, stakeholder-specific issues through applied research to provide targeted climate services where a RISA is more focused on the needs of the stakeholder network. However, RISA teams can build on the tools developed by SARP investigators to advance adaptation within the stakeholder network, both individually and across all the regions.

RISA partners include (or can include):

- State and local governments
- DOI/FWS, USGS, NPS, BOR, BLM; USDA/FS, NRCS, extension; EPA, USACE
- Non-governmental organizations (NGOs) with resource management interests
- NOAA entities (National Weather Service/Climate Prediction Center and local/regional offices; National Estuarine Reserves; National Marine Sanctuaries; Coastal Services Center; NOAA labs and data centers);
- NOAA-supported institutions, such as the Regional Climate Centers (RCCs), state climatologists and/or other climate information providers; Sea Grant;

Outcomes

RISAs undertake research and development of tools and information products in the context of developing prototypes for regional climate services. Specific products include:

- Integration of climate information into resource management and planning models and processes;
- White papers on climate impacts and adaptation issues for resource managers and planners;
- Analyses and communication of uncertainties surrounding climate predictions and projections;
- Improvements to climate impacts models;
- Peer-reviewed science papers related to climate impacts and adaptation issues;
- Newsletters containing climate impacts/prediction information and articles on climate impact issues of significance to the region;
- Presentations on research results to resource managers, planners and scientists;
- Workshops, surveys, focus groups, and ongoing dialogue with decision makers in the region

Reference Information

General information on RISA and links to current RISA team web sites can be found at http://www.climate.noaa.gov/cpo_pa/risa. See Climate Program Announcement for FY11 for details (expected to be posted in early July).

Other relevant resources:

1. Regional Climate Centers: http://www.ncdc.noaa.gov/oa/climate/regionalclimatecenters.html
2. NWS Climate Services: http://www.nws.noaa.gov/organization.php#hq;
3. State Climatologists http://www.ncdc.noaa.gov/oa/climate/aasc.html
4. U.S. Climate Change Science Program (CCSP) Strategic Plan (http://www.climatescience.gov/Library/stratplan2003/final/default.htm)
5. Sector Applications Research Program (SARP) (http://www.climate.noaa.gov/cpo_pa/SARP)

FY 2011 Priorities

For FY2011, RISA is soliciting proposals to fund three RISA teams either in three existing regions within the network (Alaska, California and Nevada, and North and South Carolina) or in new regions. CSI-Regions is also soliciting proposals for RISA teams to advance regional assessment services including the development of NOAA's Climate Service and the National Climate Assessment. Also, RISA teams can apply to CSI-Water for Coping With Drought funds and CSI-Coasts for projects investigating regional climate impacts and adaptation in the coastal sector (e.g. ocean acidification or sea level rise on the Pacific coast).

Please check the CSI website for more information on regional assessment services and the

coastal sector project as it becomes available. In the mean time, questions can be directed to Adam Parris (adam.parris@noaa.gov, 301-734-1243).

RISA is soliciting proposals to fund three RISA teams outside of the following regions:

- Pacific Islands region
- Washington, Oregon and Idaho
- Colorado, Wyoming and Utah
- Michigan, Ohio and parts of Ontario (Watersheds of Lakes Huron and Erie)
- Alabama, Florida and Georgia
- Urban Northeast (Boston-NY-Philadelphia corridor)
- Arizona and New Mexico, Jonathan Overpeck (University of Arizona)
- Oklahoma, Texas, Louisiana, Mississippi, Arkansas, and Tennessee, Mark Shafer (University of Oklahoma) and Barry Keim (Louisiana State University)

Teams focused on regions that contain coastlines are expected to include a component that focuses on the needs of coastal resource managers and links with NOAA coastal entities and issues. For proposals that include a focus area on drought, the proposal should speak to connections with the emerging National Integrated Drought Information System (NIDIS) being developed by NOAA. For these proposals, RISAs are encouraged to engage the preparedness communities (e.g., watershed, state or county entities, regional entites, federal agencies) in developing drought-related indicators and risk management triggers for preparedness and response. Information about NIDIS can be found at http://www.drought.gov/portal/server.pt.

Proposed RISAs can be up to ***5 years*** in duration. RISAs are re-competed every five years. The average NOAA funding for a RISA team is expected to be in the range of $600-700K/year depending on the availability of funds. We expect teams to demonstrate high existing or potential leveraging of university, federal, state, and/or local funding.

NOTE: We encourage multiple proposal teams for each region. However, each proposed RISA team must only submit one proposal (including subcontracts for partner institutions/investigators). NOAA conducts a peer review process to select the best, integrated science, assessment, and outreach effort for a given region. Site visits may be included as part of the peer review process.

Recommended proposal components

Proposals should include a strong emphasis on climate change impacts and adaptation issues but should also include issues of climate variability (past, present, and future) to inform resource management and planning. Proposed projects should build on progress already achieved by integrated climate-society research and assessments projects in the proposed region in terms of working with stakeholders and advancing regional climate impacts science. In addition, the proposals should address the following themes/components (not necessarily in this structure or order):

Interdisciplinary Research: The proposal should address how the team intends to include social and physical science research on the impacts of climate variability and change on the social, ecological, and/or economic systems of the region. Research on evaluating the impact of the RISA on regional and local stakeholders, policy and planning processes, and resource management as the RISA progresses is very important.

Transferability: NOAA hopes to accelerate decision support research and transition experimental tools into resource management and public and private sector planning. Proposed tool development should include an explicit statement about potential end-users and a RISA strategy for eventual transition of the tool to an operational or quasi-operational entity (e.g., local, state or federal agencies, extension networks, or the private sector).

Team Composition/Partnerships: Teams are highly encouraged to link with NOAA entities, NOAA-supported institutions, and NOAA's partner agencies with resource management responsibilities (see Partners section above). Place-based research is a key component of the RISA research methodology. NOAA encourages prospective proposals to include partners from the region. Applicants are encouraged to plan for multi-institutional partnerships, where appropriate, over the five-year period. Research teams need not be from only one institution. Partners could include other universities, NGOs, U.S. federal agencies, state and local agencies (including state climatologists), native or tribal organizations, and the private sector. RISA teams should explore the opportunity to collaborate with the US Fish and Wildlife Service's (USFWS) emerging Landscape Conservation Cooperatives (LCCs) and the Department of the Interior's "regional hubs" of the National Climate Change and Wildlife Science Center operated by the United States Geological Survey (USGS). We are also interested in how your proposed RISA can link with currently underserved communities in the region.

RISA Team Management: Integration and management of the team and its various components are critical to the success of a RISA. A core office with a part-time or full-time program manager or a strong executive committee is advised. The core office serves an important role in developing mechanisms for and ensuring the integration of research elements and ensuring the role of stakeholder activities in influencing the direction of the research. The latter is of paramount importance for ensuring a successful RISA. Plans for engaging the stakeholder community should be clearly spelled out, and the core office could play a significant role here as well. A component of flexible funding could be beneficial so that the RISA can respond to stakeholder needs and undertake short-term (1-2 year) research and outreach activities in response to those needs as the RISA evolves during the five-year period. Please include an organizational chart that speaks to the relationship between the core management team, each partner institution/investigator, and the regional stakeholders as a whole. Please also include a general timeline for RISA activities showing major phases of the RISA research and interaction with the stakeholders.

NOAA Climate Service: Where appropriate, applicants should also show how their research and prototype tools and services could potentially contribute to emerging NOAA Climate Services in the region. (See sources listed under background information below.) Proposed linkages to NOAA, NOAA-supported institutions, and/or other climate information providers for the region, should be addressed in the proposal.

NOAA Coordination: RISAs are implemented as cooperative agreements with NOAA and thus some amount of regular interaction between the RISA team and NOAA is expected. NOAA is particularly interested in what the NOAA Climate Services as a whole can learn from the RISAs in terms of stakeholder feedback to help guide observations and research planning, NOAA forecasts, projections and downscaling efforts, and NOAA Climate Services as a whole.

Teams are expected to participate in periodic RISA network meetings and conference calls, NOAA Climate Services meetings, and NIDIS meetings, where appropriate. In addition, teams are expected to respond to periodic requests for information regarding topics relevant to their project or recent research they are conducting.

FAQs: Discussion questions that often arise during the proposal review panel process have included following:

- Is there a plan for engaging stakeholders and addressing their needs?
- Will the science be influenced by stakeholder engagement? Is there a plan for this? Does the team have experience in engaging stakeholders in a collaborative fashion?
- Will the research address important resource management and public policy issues?
- How effectively will the proposed effort address climate impacts science for the region? Does the team have the expertise needed? Have they advanced this area in the past?
- For instance, does the team have the necessary social (e.g., economic, political, anthropological, etc.) and physical (e.g., atmospheric, oceanographic, etc.) sciences expertise?
- In particular, is the team proposing to address the socio-economic dimensions of climatic impacts in the region? Do they have the expertise to address these issues?
- Does the proposal contain a plan for integration of the science? Does the team have experience in integrated research necessary for addressing regional climate impacts?
- Is there a plan for managing the integration of the team?
- Will the team link with broader climate services efforts in the region, such as National Weather Service climate services, Regional Climate Center, state climatologists and other state or federal agency efforts (e.g., USDA, Department of Interior, etc.)?

- Does the team have a plan for assessing their performance (e.g., standards measures, internal reviews) and expressing/addressing successes and challenges?

Interested applicants for all competitions are highly encouraged to submit a 2-page Letter of Intent (LOI) outlining plans for a RISA by May 26, 2010 to Zachary.Zhao@noaa.gov.

Proposals being offered funding from the FY11 review process are announced as soon as they have been vetted through the grant awarding process (summer 2011).

Please contact Stewart Carrera (stewart.carrera@noaa.gov, 301-734-1209) for information about how to submit a proposal, page limitations or questions about the application forms, and Adam Parris (adam.parris@noaa.gov, 301-734-1243) about the objectives of RISA .